

BEFORE THE

**Federal Communications Commission**

WASHINGTON, D.C. 20554

RECEIVED

JUL 30 1993

In the Matter of )  
 )  
Replacement of Part 90 by )  
Part 88 to Revise the Private )  
Land Mobile Radio Services and )  
Modify the Policies Governing )  
Them )

PR Docket 92-235

To: The Commission

**REPLY COMMENTS  
OF THE  
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

**THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA**

Shirley S. Fujimoto  
Joseph M. Sandri, Jr.  
Keller and Heckman  
1001 G Street, N.W.  
Suite 500 West  
Washington, D.C. 20001  
(202) 434-4142

Its Attorneys

Dated: July 30, 1993

No. of Copies rec'd  
List A B C D E

179

## TABLE OF CONTENTS

SUMMARY . . . . .	ii
I. STATEMENT OF INTEREST . . . . .	2
II. HEIGHT ABOVE AVERAGE TERRAIN (HAAT)/EFFECTIVE RADIATED POWER (ERP) RESTRICTIONS . . . . .	3
III. A USER POOL NEEDS TO BE CREATED FOR UTILITY AND INDUSTRIAL OPERATIONS WHICH HAVE CRITICAL SAFETY- BASED COMMUNICATIONS NEEDS . . . . .	9
IV. METROPOLITAN FAVORS THE ALTERNATIVE SPECTRUM EFFICIENCY STANDARDS PROPOSED BY LMCC . . . . .	11
V. IMPOSING SOLUTIONS TO URBAN CONGESTION PROBLEMS ON RURAL AREAS WOULD CREATE INEFFICIENCIES AND CAUSE SUBSTANTIAL HARM . . . . .	13
VI. CONCLUSION . . . . .	14

## SUMMARY

The Metropolitan Water District of Southern California is extremely supportive of the Federal Communications Commission's efforts in this proceeding to make operations in the bands below 512 MHz more efficient. As an entity in the unique position of operating land mobile systems in both one of the nation's most congested areas as well as in substantially rural areas, Metropolitan is concerned that certain aspects of the refarming proposal are overly broad. Specifically, the Commission's proposals for power restrictions and the implementation of narrowband equipment do not appear to be sensitive to the needs of rural operators. In fact, these proposals, if implemented in their current form, would force Metropolitan and other entities to make extremely expensive and unnecessary investments in equipment in areas where spectrum congestion is not a problem. Therefore, Metropolitan urges the Commission to be cautious when considering the uniform implementation of proposals designed primarily to solve urban problems.

Concerning the Commission's proposed power limitations, Metropolitan endorses the alternative "safe harbor" proposal put forth by the Land Mobile Communications Council (LMCC).

Regarding spectrum efficiency through mandatory narrowbanding, Metropolitan endorses LMCC's UHF and Option A VHF plans. These plans present the opportunity for a smooth and productive transition to narrowband technologies, without the inherent chaos and needless expense of forcing the introduction of technologies in areas that do not yet need, and cannot afford them. The LMCC plans will introduce stability into the process and allow the intended positive effects of equipment amortization to be achieved.

BEFORE THE  
**Federal Communications Commission**

WASHINGTON, D.C. 20554

RECEIVED

JUL 30 1993

FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554

In the Matter of )  
 )  
Replacement of Part 90 by )  
Part 88 to Revise the Private )  
Land Mobile Radio Services and )  
Modify the Policies Governing )  
Them )

PR Docket 92-235

To: The Commission

**REPLY COMMENTS  
OF THE  
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

Metropolitan Water District of Southern California ("Metropolitan") pursuant to Section 1.415 of the Rules and Regulations of the Federal Communications Commission ("FCC" or "Commission") hereby submits its Reply Comments in response to the Notice of Proposed Rule Making ("NPRM") adopted on October 8, 1992 in the above-captioned proceeding.<sup>1/</sup> The Reply Comment filing date was subsequently extended until July 30, 1993.<sup>2/</sup>

---

<sup>1/</sup> Notice of Proposed Rule Making, PR Docket No. 92-235, 7 FCC Rcd. 8105 (Released, November 16, 1992).

<sup>2/</sup> Order Extending Reply Comment Period, PR Docket 92-235 (DA 93-800) (Released, July 2, 1993).

I.  
STATEMENT OF INTEREST

system, which is made up of over 500 mobile radios and six base stations, coordinates the dispatch and monitoring of maintenance and repair crews throughout rural and urban Southern California.

4. Another VHF wireless system is used in the coordination, transportation and use of hazardous materials at six treatment plants in the Los Angeles basin. These hazardous materials, such as chlorine and caustic sodas, are used to treat the enormous amount of water handled by Metropolitan. The Department of Transportation, pursuant to federal legislation, has determined that these materials, in their undiluted form, require strict supervision in their use and transport.<sup>3/</sup> Metropolitan's land mobile system is a crucial part of the overall system which Metropolitan employs to accomplish this safety goal. This communications system is also used to administer critical clean up efforts in the event of a chemical spill.

II.  
HEIGHT ABOVE AVERAGE TERRAIN (HAAT)/EFFECTIVE

purpose is to free needed spectrum in congested areas by using the restrictions to limit coverage area. The urban portions of Metropolitan's coverage area would definitely benefit from an intelligently designed HAAT/ERP restriction, as the spectrum in those areas is some of the most congested in the nation. However, the coverage area for a large portion of Metropolitan's land mobile systems is in uncongested rural areas. This is because Metropolitan receives almost all of its water from the Colorado river and northern California. Therefore, its land mobile communications systems cover the paths of many of its major water lines and viaducts which run through some desert areas where spectrum congestion is not a concern. Additionally, many of the farms that make up California's vaunted fruit and vegetable production use Metropolitan's water and are located in rural areas. Consequently, Metropolitan's maintenance and repair teams often must operate in rural areas. In both urban and rural settings, Metropolitan's crews rely on its land mobile communications systems.

6. The FCC's proposed restrictions were designed with the commendable purpose of expanding channel usage and efficiency, but if they are implemented in their present form on rural areas they will seriously hamper Metropolitan's and other licensees' rural operations.

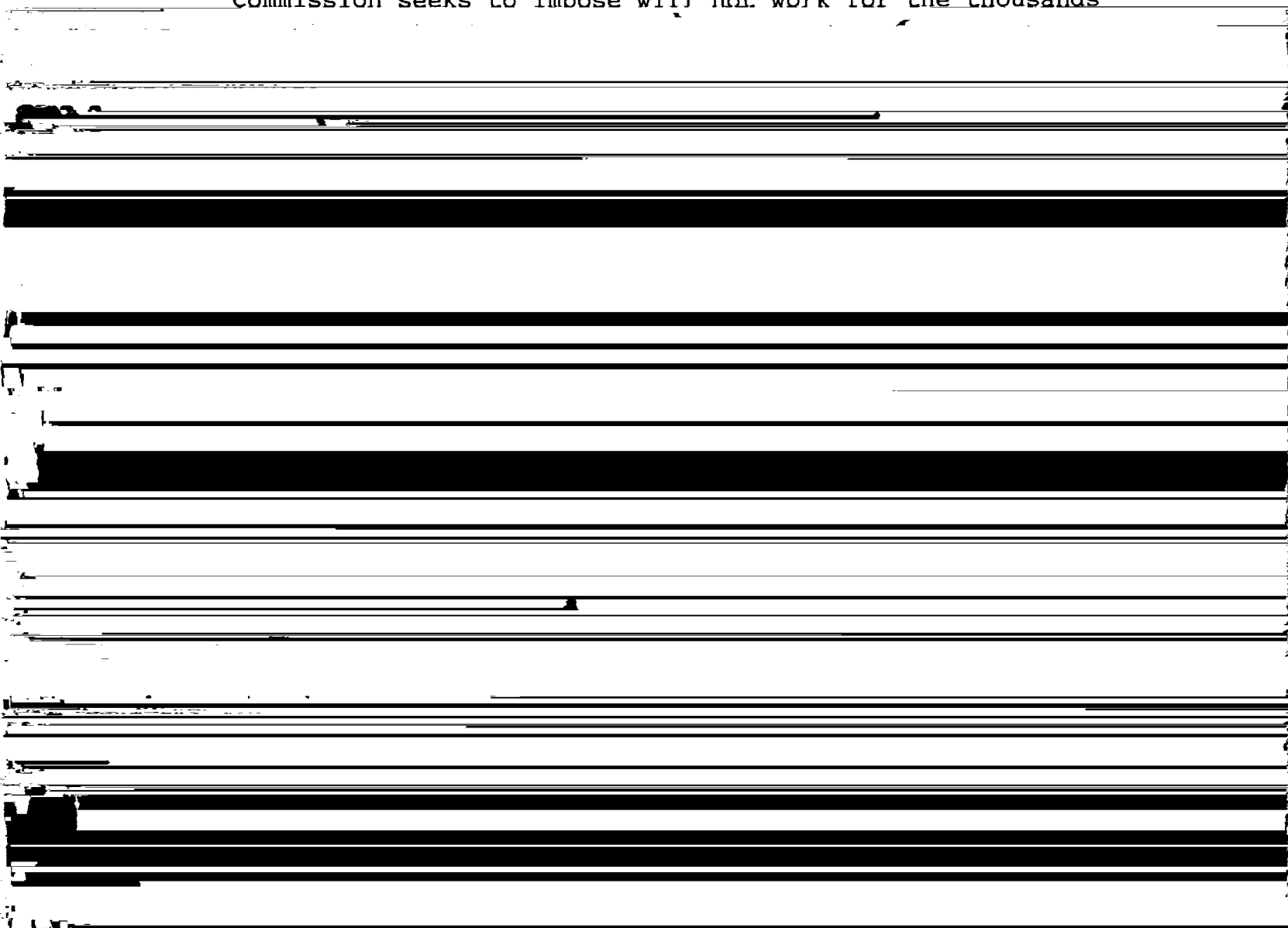


7. First, the Commission's proposal fails to recognize, and make room for, the extensive differences between congested and uncongested areas. Most rural areas, including portions of the southern California desert, do not have the extensive spectrum congestion problems that plague the Los Angeles area. Requiring Metropolitan to reduce HAAT and ERP in the rural, uncongested portions of its coverage area would unfortunately compel Metropolitan to purchase and install additional systems just to retain minimum coverage. The end result would be to force Metropolitan to purchase and install, at considerable expense, an inefficient communications system. Metropolitan and its ratepayer would not receive any apparent benefit from the substantial expense undertaken to modify its systems in rural areas. In fact, due to Metropolitan's status as a utility, the cost for the new systems would certainly have to be passed on directly to the ratepayers. This result would be unfair to the public, particularly in areas where there does not appear to be a congestion problem necessitating such expenditures.

8. Second, the Commission's proposal does not recognize that systems which do not operate amid flat terrain often cannot function properly within the proposed

HAAT/ERP restrictions. Again, as mentioned above, in order to comply with the proposed restrictions and meet coverage area requirements, licensees would be forced to install, at great expense, additional transmitters and towers should their coverage area include mountains, ridges, valleys or other difficult terrain.

9. Thus, the regulatory uniformity which the Commission seeks to impose will not work for the thousands



like systems in areas where they are not otherwise needed and will create an unfair financial burden.

11. While the general concept behind the Commission's proposal is certainly sound and valid as it pertains to congested areas, Metropolitan favors the adoption of a plan which would address both rural and urban concerns, as this would be most efficient and cost effective. Consequently, Metropolitan respectfully requests that the Commission consider the adoption of the Land Mobile Communications Council's (LMCC) proposed "safe harbor" table and HAAT/ERP "justification" plan.<sup>4/</sup>

12. The LMCC table meets the Commission's objective of providing opportunities for expanded channel reuse through a sliding scale of HAAT/ERP combinations.<sup>5/</sup> This flexibility provides licensees with the crucial ability to meet the unique operating conditions that each of their coverage areas present.<sup>6/</sup> Further, Metropolitan strongly supports

---

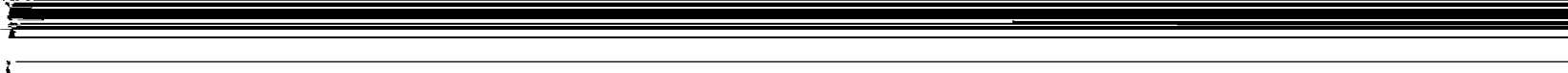
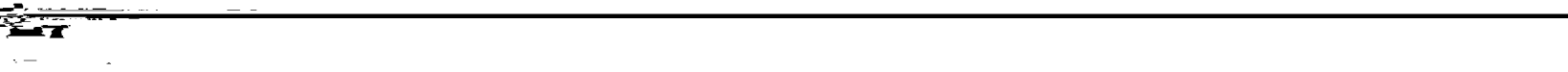
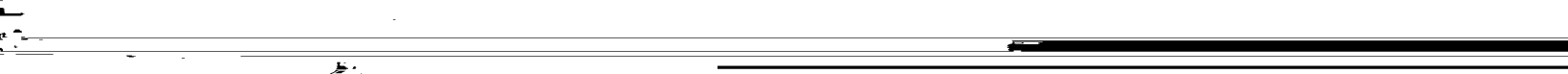
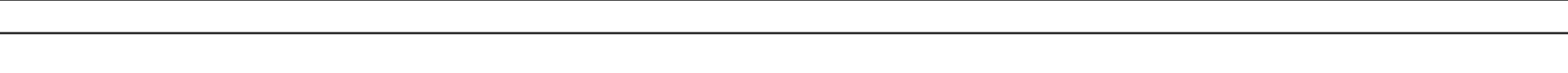



<sup>4/</sup> Consensus Plan Development By the Land Mobile Communications Council To Introduce Greater Efficiencies in PLMRS Bandwidths and Power Levels, PR Docket No. 92-235, at 17. (Hereinafter "LMCC Consensus Plan").

<sup>5/</sup> Id at 17-20.

<sup>6/</sup> Metropolitan notes that the flexibility of LMCC's safe harbor plan also allows urban licensees with non-standard  
(continued...)

the LMCC Consensus Plan's alternative idea of allowing an entity to submit coverage maps in order to justify its need for a power level that does not fall within the safe harbor table.<sup>7/</sup> If undue interference would not be caused by operating at that power level, and minimum coverage is impossible without operation at the requested levels, this process would provide a suitable mechanism for addressing situations not contemplated by the table.

13. Metropolitan cannot over emphasize the fact that it is in full accordance with the Commission's goal of constructing a more efficient operating environment. Metropolitan's urban land mobile operations will certainly benefit from a less congested atmosphere. Yet, Metropolitan's primary concern is that as currently offered, the Commission's proposal would actually harm the public.



III.

A USER POOL NEEDS TO BE CREATED FOR  
UTILITY AND INDUSTRIAL OPERATIONS WHICH HAVE  
CRITICAL SAFETY-BASED COMMUNICATIONS NEEDS

consider creating a separate pool for utility and industrial operations which have critical safety-based communications needs.<sup>2/</sup>

16. Metropolitan strongly supports the alternative proposal for creating an Industrial and Utility Safety Pool. First, Metropolitan, as a course of business, must treat its water with materials that are hazardous in their undiluted form. As previously stated, the transportation and use of these materials is highly regulated and a major public safety concern. Accordingly, Metropolitan needs to be assured that it will retain access and control over a "seamless" communications system to handle these hazardous materials. Moreover, Metropolitan's land mobile communications systems are an integral part of maintaining and repairing the water system. Metropolitan is the provider of water to firefighters, hospitals and other essential services. Fires can often rage for days on end and the supply of water is often the most crucial element standing between the destruction of life and property. The maintenance, repair and supply of water for essential needs

---

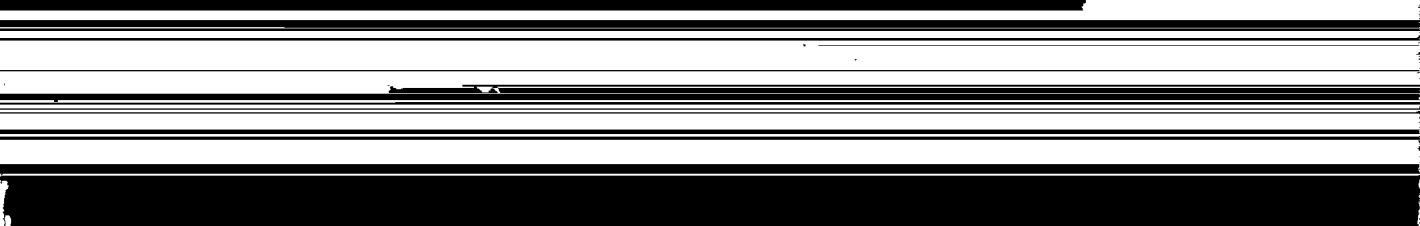
<sup>2/</sup> See, American Petroleum Institute ("API") at 5-6; Coalition at 13-14; Coastal at 5; E.F. Johnson at 18; Joint Commentors at 22; NABER at 25-26; and, UTC at 9-10.

such as these is coordinated over Metropolitan's communications system.

17. The need for a "sterling" mobile communications system for Metropolitan's operations in dry Southern California is quite evident. Through access to an Industrial and Utility Safety Pool, Metropolitan would be more confident that its communications needs and consequently the public's safety and subsistence needs will be met.

IV.  
**METROPOLITAN FAVORS THE ALTERNATIVE SPECTRUM  
EFFICIENCY STANDARDS PROPOSED BY LMCC**

18. The FCC stated in the NPRM that by mandating its proposed narrowband standards spectrum capacity would increase, over time, from three to five-fold. Current operations utilize up to 25 kHz per channel, with buffer zones of 12.5 to 30 kHz separating each channel. In a two-step process, the Commission suggested moving from the 25 kHz channelization paths to 6.25 kHz channelization in the 421-512 MHz UHF bands and to 5 kHz channelization in the 72-76 MHz and 150-174 MHz VHF bands. The concept of "stacking" neighboring channels for wideband uses was also



19. LMCC presented an alternative which is designed to promote a more "graceful transition" where operators seeking primary status for their UHF systems would have to employ "true" 12.5 kHz equipment by 2004.<sup>10/</sup> For the VHF band, LMCC suggested two options. Option A mandates 12.5 kHz bandwidths by 2004 and Option B mandates 6.25 kHz bandwidths by 2004.<sup>11/</sup>

20. Metropolitan endorses LMCC's UHF and Option A VHF plans. These plans provide for a more reasonable transition period during which the industry can adjust to meet the FCC's requirements. Additionally, the period would provide licensee's with the ability to properly amortize existing equipment. Such financial factors should be given considerable weight due to: 1) The troubled state of the economy; 2) the fact that vast investments in communications equipment were made with the expectation that the equipment would be allowed to operate for a minimum time period;<sup>12/</sup>



and, 3) the fact that ratepayers will ultimately bear the

~~burden of paying for unnecessary equipment purchases forced~~

**VI.**  
**CONCLUSION**

22. Metropolitan congratulates the Commission for taking the initiative in charting a course for more effective and efficient use of the frequency bands below 512 MHz. Metropolitan appreciates the opportunity to provide Reply Comments in full support of the LMCC Consensus Plan's alternatives for HAAT/ERP restrictions and spectrum efficiency. Regarding spectrum efficiency, Metropolitan endorses LMCC's UHF and Option A VHF plans. These plans present the opportunity for a smooth and productive transition to narrowband technologies, without the inherent chaos and needless expense of forcing the introduction of technologies in areas that do not yet need, and cannot afford them. The LMCC plan will introduce stability into the process and allow the intended positive effects of equipment amortization to be achieved.

**WHEREFORE, THE PREMISES CONSIDERED,** the Metropolitan Water District of Southern California respectfully requests the Commission to take actions consistent with the views expressed herein.

Respectfully submitted,

**METROPOLITAN WATER DISTRICT OF  
SOUTHERN CALIFORNIA**